

Application Serial No: 10/644,549  
In reply to Office Action of 19 October 2006

Attorney Docket No. 84454

AMENDMENTS TO THE CLAIMS

1. (canceled)

2. (canceled)

3. (canceled)

4. (canceled)

5. (canceled)

6. (canceled)

7. (canceled)

8. (canceled)

9. (canceled)

10. (original) A method for connecting a first fiber optic element to a second fiber optic element, the method comprising the steps of:

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providing a rigid elongated body having a cone-shaped end  
and an opposite circular and planar base end;

coating outer surfaces of the body other than the base end  
with a layer of mold making wax;

separating the body from the wax to provide a hollow wax  
housing having a cone-shaped end and an open base end;

providing a hole in an apex of the housing cone-shaped end;

inserting a first fiber optic element comprising a single  
fiber optic strand through the hole in a first  
direction into the wax housing to position a free end  
of the single fiber optic strand in the housing;

applying a sealant to the single strand at the housing apex  
hole;

inserting the second fiber optic element comprising a  
plurality of fiber optic strands into the wax housing  
through the open-base end from a direction generally  
opposite to the first direction to position free ends  
of the plurality of fiber optic strands in the housing

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and proximate the single fiber optic strand free end,  
the positions to which the free ends of said first and  
second element strands are inserted being spaced apart  
by a distance to allow a sufficient extent of  
diffusion of light in the optical grade epoxy resin  
therebetween to couple light between the strand of the  
first fiber optic element and each strand of the  
second of the fiber optic elements;

filling the wax housing with optical grade epoxy resin and  
permitting the resin to cure;

whereby to effect physical and optical connection between  
the first and second fiber optic elements; and

removing the wax housing from the resin.

11. (canceled)

12. (canceled)

13. (canceled)

14. (canceled)